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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/598,263	08/23/2006	Johannes Jacobus Franciscus Geijtenbeek	NL 040281	2062

24737 7590 07/30/2009

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EXAMINER	
LEE, BRENITRA M	
ART UNIT	PAPER NUMBER
2889	
MAIL DATE	DELIVERY MODE
07/30/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/598,263	GEIJTENBEEK ET AL.	
	Examiner	Art Unit	
	BRENITRA M. LEE	2889	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 July 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *24 June 2009* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This Office Action is in response to applicant's communication filed on 15 July 2009. In virtue of this communication, claims 1-14 are presented in the instant application.

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 15 July 2009 has been entered.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1-3 (currently amended) are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims1-2 (currently amended) of copending Application No. 10/598261. Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 1, lines 8-11 of the present application recites --wherein said ionizable salt comprises NaI, TlI, CaI2 and X-iodide, where X comprises Nd. The copending application states in claim 1, lines 8-10 --said ionizable salt is selected from the group consisting of NaI, T1I, CaI2 and XI3, wherein X is selected from the group consisting of rare earth metals. Nd is a rare earth metal. Claim 2 and 3 of the present application list various elements that can be selected for the X cited in claim 1. Claim 3, of the copending application states four of the elements of claim 2 of the present application and all of the elements in claim 3 of the present application. Since all of these elements are rare earth metals, it would have been obvious to one of ordinary skill in the art at the time the invention was made to select these particular elements.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1-3 and 8-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jackson et al. (U.S. Patent 6,861,805 B2) in view of Zhu et al. (U.S. Patent 6,819,050 B1).

` With respect to claims 1 and 3, Jackson et al. discloses in Figs. 8-10, a metal halide lamp comprising a discharge vessel surrounded by an outer envelope (10) (Col. 4, line 23) with clearance and having a ceramic wall (24, 25) (Col. 4, lines 38-40) which encloses a discharge space (21) (col. 4, line 49) filled with a filling comprising an inert gas (Col. 4, lines49-50) including xenon (Xe) (Col. 9, lines 8-10), and an ionizable salt (Col. 5, line 20), wherein in said discharge space two electrodes (30, 40) (See. Fig. 9) are arranged whose tips have a mutual interspacing (See Fig. 9) so as to define a discharge path between them, wherein said ionizable salt comprises NaI, T1I, CaI_2 and X-iodide (See. Col. 5, lines 20-21). Jackson does not disclose X comprises Ce, Pr or Nd.

Zhu et al. discloses X comprises Ce, Pr or Nd (Col. 7, lines 4-10) in order to provide adequate voltage drop and power loading between the electrodes (Col. 1, lines 45-49).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the metal halide lamp of Jackson et al. and incorporate the rare earth elements of Zhu et al. to provide adequate voltage drop and power loading between the electrodes.

With respect to claim 2, the combination of Jackson et al. and Zhu et al. discloses all the limitations as expressly recited in claim 1. Jackson et al. further discloses all the limitations as expressly recited in claim 1, and further discloses, as to be best interpreted, X is selected from a group consisting of Dy, Ho, Tm (See Col. 5, lines 20-21).

With respect to claim 8, the combination of Jackson et al. and Zhu et al. discloses all the limitations as expressly recited in claim 1. Jackson et al. further discloses, the filling comprising Hg (Col. 8, lines 62-63).

With respect to claim 9, the combination of Jackson et al. and Zhu et al. discloses all the limitations as expressly recited in claim 1. Jackson et al. further discloses, as to be best interpreted, the lamp has a wall load when in stable operation at rated power of at least 30 W/cm2 (Col. 7, lines 45-46).

With respect to claim 10, the combination of Jackson et al. and Zhu et al. discloses all the limitations as expressly recited in claim 1. Jackson et al. further discloses, at least one electrode extends inside the discharge vessel over a length

forming a tip to bottom distance (t-b) between the discharge vessel wall and the electrode tip and which the tip to bottom distance (t-b) is at most 4.5 mm (Col. 8, lines 41-44).

With respect to claim 11, the combination of Jackson et al. and Zhu et al. discloses all the limitations as expressly recited in claim 1. Jackson et al. further discloses, the discharge vessel has a rectangular cross section along the discharge path and wherein the tip to bottom distance (t-b) is at most 3.5 mm (Col. 8, lines 41-44).

With respect to claim 12, the combination of Jackson et al. and Zhu et al. discloses all the limitations as expressly recited in claim 1. Jackson et al. further discloses the filling of the discharge vessel is free of Cs.

With respect to claim 13, the combination of Jackson et al. and Zhu et al. discloses all the limitations as expressly recited in claim 1.

The recitation “The metal halide lamp of claim1 to be used in a vehicle headlamp" cited in lines 1-2 is not of patentable merit as it is directed to an intended use or a manner of operation. A claim containing a recitation with respect to a manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus if the prior art apparatus teaches all the structural limitations of the claim. See MPEP § 2114.

7. Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jackson et al. (U.S. Patent 6,861,805 B2) in view of Zhu et al. (U.S. Patent 6,819,050 B1) and Dakin et al. (U.S. Patent 6,731,068 B2).

With respect to claim 4-6, the combination of Jackson et al. and Zhu et al. discloses all the limitations as expressly recited in claim 1. The combination does not disclose the molar percentage ratio.

Dakin et al. discloses the molar percentage ratio X-iodide/(NaI+TlI+CaI_2+X-iodide) lies between 0.5 and 7% and wherein the molar percentage ratio CaI_2/(NaI+TlI+CaI_2+X-iodide) lies between 10 and 95% (Table of para. 0029, **if the numbers given in the table are inserted into the above formulas, the molar percentages fall within the above ranges**). Dakin et al. further discloses the amount of NaI, TlI, CaI_2 and X-iodide lies between 0.001 and 0.5 g/cm^3 (**The volume in the arc tube is roughly the volume of the cylinder with a diameter of 15.6 mm (1.56 cm) and a length of 33.7 mm (3.37 cm) (Col.4, lines 61-63) given a volume of 6.44 cm^3. The fill is 50 mg (0.05 g) (Col.4, line 66), therefore, the amount of salt is approximately 0.007 g/cm^3**). Dakin et al. example pertains to rare earth metals, Dy-Ho-Tm, however, it is discloses in para. 0024 neodymium (Nd). One of ordinary skill in the art at the time the invention was made would have chosen Nd as one of the rare earth metals in order to ensure various characteristics of the lamp, including efficiency and starting capabilities (para. 0008).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the metal halide lamp of Jackson et al. and Zhu et al. and incorporate the elements such that the molar percentages are calculated as taught by Dakin et al. to ensure various characteristics of the lamps including efficiency and starting capabilities.

8. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jackson et al. (U.S. Patent 6,861,805 B2) in view of Zhu et al. (U.S. Patent 6,819,050 B1) and Tamura et al. (U.S. Patent Application Publication).

With respect to claim 7, the combination of Jackson et al. and Zhu et al. discloses all the limitations as expressly recited in claim 1. Jackson et al. further discloses emitting light during stable nominal operation having a color temperature T_c above 3500K (Col. 3, lines 15-17). The combination does not disclose the discharge space comprises a halide selected from Mn and In.

Tamura et al. discloses the discharge space comprises a halide selected from Mn and In (para. 0023 and para. 0024) in order to contribute to the improvement of the chromaticity of the emitted light (para. 0024, lines 5-6).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the metal halide lamp of Jackson et al. and Zhu et al. and incorporate Mn and In to contribute to the improvement of the chromaticity of the emitted light.

8. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Böröczki et al (U.S. Patent 6,536,918 B1) in view of Jackson et al. (U.S. Patent 6,861,805 B2).

With respect to claim 14, Böröczki et al. discloses in Fig. 1, a vehicle headlamp with a metal halide lamp (Col. 2, line 45; Col. 5, lines 31-34) comprising a discharge space (10) (Col. 2, line 67). Böröczki et al. does not disclose surrounding an outer envelope with clearance and having a ceramic wall which encloses a discharge space; filling said discharge space with a filling comprising an inert gas including xenon (Xe),

and an ionizable salt; and arranging in said discharge space two electrodes whose tips have a mutual interspacing so as to define a discharge path between them; wherein said ionizable salt comprises NaI, TlI, CaI_2 and X-iodide wherein X comprises Nd.

Jackson et al. discloses surrounding discharge vessel with an outer envelope (10) (Col. 4, line 23) with clearance and having a ceramic wall (24, 25) (Col. 4, lines 38-40) which encloses a discharge space (21) (Col. 4, line 49); filling said discharge space with a filling comprising an inert gas (Col. 4, lines 49-50) including xenon (Xe) (Col. 5, line 13), and an ionizable salt (Col. 5, line 20); and arranging in said discharge space two electrodes (30, 40) (See Fig. 9) whose tips have a mutual interspacing (See Fig. 9) so as to define a discharge path between them; wherein said ionizable salt comprises NaI, TlI, CaI_2 and X-iodide (See Col. 5, lines 20-21) in order to exhibit excellent initial color consistency, superb stability over life, high luminous efficacy and longer lifetimes (Col. 3, lines 27-32).. Jackson et al. does not disclose X is Nd.

Zhu et al. discloses X comprises Nd (Col. 7, lines 4-10) in order to provide adequate voltage drop and power loading between the electrodes (Col. 1, lines 45-49).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to form a metal halide lamp used as a vehicle headlamp as taught by Böröczki et al. that incorporates the structural characteristics of Jackson et al. in order to exhibit excellent initial color consistency, superb stability over life, high luminous efficacy and longer lifetimes and the rare earth elements of Zhu et al. to provide adequate voltage drop and power loading between the electrodes.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRENITRA M. LEE whose telephone number is (571)270-7552. The examiner can normally be reached on Monday-Friday 7:30 am - 6:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Toan Ton can be reached on 571-272-2303. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BRENITRA M. LEE/
Examiner, Art Unit 2889

/Karabi Guharay/
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